

## In the Claims

This listing of claims will replace all prior versions, and listings, of claims.

### Listing of Claims

1-27. (Canceled)

28. (Currently amended): A method for adjusting a transmission rate of a wireless communication system comprising a transmitter and a receiver, the method comprising:

counting a number of first transmitted packets within a predetermined time interval, the first transmitted packets being transmitted by the transmitter ~~under at~~ a first transmission rate;

counting a number of first acknowledgement packets received by the receiver, each of the first acknowledgement packets representing a successful transmission of one of the first transmitted packets;

counting a number of second transmitted packets within the predetermined time interval, the second transmitted packets being transmitted by the transmitter ~~under at~~ a second transmission rate, the second transmission rate being lower than the first transmission rate;

counting a number of second acknowledgement packets received by the receiver, each of the second acknowledgement packets representing a successful transmission of one of the second transmitted packets;

judging whether a first relationship between the number of first transmitted packets and the number of first acknowledgement packets satisfies an increment criterion;

judging whether the first transmission rate ~~reaches~~ exceeds a maximum transmission rate;

increasing the first transmission rate [[when]] ~~if~~ the first relationship satisfies the increment criterion and the first transmission rate ~~does not reach~~ is not above the maximum transmission rate;

judging whether a second relationship between the number of second transmitted packets and the number of second acknowledgement packets satisfies a decrement criterion;

judging whether the second transmission rate ~~reaches~~ is below a minimum transmission rate; and

decreasing the second transmission rate [[when]] ~~if~~ the second relationship satisfies the decrement criterion and the second transmission rate ~~does not reach~~ is not below the minimum transmission rate.

29. (Currently amended): A method for adjusting a transmission rate of a wireless communication system comprising a transmitter and a receiver, the method comprising:

counting a number of first transmitted packets within a predetermined time interval, the first transmitted packets being transmitted by the transmitter ~~under~~ at a first transmission rate;

counting a number of first acknowledgement packets received by the receiver, each of the first acknowledgement packets representing a successful transmission of one of the first transmitted packets;

counting a number of second transmitted packets within the predetermined time interval, the second transmitted packets being transmitted by the transmitter ~~under~~ at a second transmission rate, the second transmission rate being lower than the first transmission rate;

counting a number of second acknowledgement packets received by the receiver, each of the second acknowledgement packets representing a successful transmission of one of the second transmitted packets;

calculating a first relationship between the number of first transmitted packets and the number of first acknowledgement packets, and a second relationship between the number of second transmitted packets and the number of second acknowledgement packets;

judging whether the first transmission rate ~~reaches~~ exceeds a maximum transmission rate;

judging whether the second transmission rate ~~reaches~~ is below a minimum transmission rate;

comparing the first relationship with the second relationship and thereby generating a result;

increasing the first transmission rate [[when]] if the result satisfies an increment criterion and the first transmission rate ~~does not reach~~ is not above the maximum transmission rate; and

decreasing the second transmission rate [[when]] if the result satisfies a decrement criterion and the second transmission rate ~~does not reach~~ is not below the minimum transmission rate.

30. (New) The method of claim 28, wherein the operation of judging whether a first relationship between the number of first transmitted packets and the number of first acknowledgement packets satisfies an increment criterion more particularly comprises determining whether a first successful transmission ratio exceeds a first predetermined threshold, wherein the first successful transmission ratio is defined by a ratio of first acknowledgment packets and first transmitted packets.

31. (New) The method of claim 28, wherein the operation of judging whether a second relationship between the number of second transmitted packets and the number of second acknowledgement packets satisfies a decrement criterion more particularly comprises determining whether a second successful transmission ratio is less than a second predetermined threshold, wherein the second successful transmission ratio is defined by a ratio of second acknowledgment packets and second transmitted packets.

32. (New) The method of claim 28, wherein the operation of judging whether a second relationship between the number of second transmitted packets and the number of second acknowledgement packets satisfies a decrement criterion is only performed if the operation of judging whether a first relationship between the number of first transmitted packets and the number of first acknowledgement packets fails to satisfy the increment criterion.

33. (New) The method of claim 30, wherein the operation of judging whether a second relationship between the number of second transmitted packets and the number of second acknowledgement packets satisfies a decrement criterion is only performed if the first successful transmission ratio does not exceed the first predetermined threshold.

34. (New) The method of claim 29, wherein the operation of calculating a first relationship between the number of first transmitted packets and the number of first acknowledgement packets more specifically comprises calculating a first successful transmission ratio, wherein the first successful transmission ratio is defined by a ratio of first acknowledgment packets and first transmitted packets.

35. (New) The method of claim 29, wherein the operation of calculating a second relationship between the number of second transmitted packets and the number of second acknowledgement packets more specifically comprises calculating a second successful transmission ratio, wherein the second successful transmission ratio is defined by a ratio of second acknowledgment packets and second transmitted packets

36. (New) The method of claim 29, wherein the operation of increasing the first transmission rate if the result satisfies an increment criterion and the first transmission rate is not above the maximum transmission rate more specifically comprises increasing the first transmission rate if a first successful transmission ratio exceeds a predetermined ratio.

37. (New) The method of claim 29, wherein the first relationship is a first successful transmission ratio, and wherein the second relationship is a second successful transmission ratio.

38. (New) The method of claim 37, wherein the operation of comparing the first relationship with the second relationship and thereby generating a result more specifically comprises determining whether the first successful transmission ratio exceeds the second successful transmission ratio.

39. (New): A method for adjusting a transmission rate of a wireless communication system comprising a transmitter and a receiver, the method comprising:

- computing a first successful transmission ratio, wherein the first successful transmission ratio is a ratio of first acknowledgment packets to first transmitted packets transmitted at a first transmission rate, within a predetermined time interval;
- computing a second successful transmission ratio, wherein the second successful transmission ratio is a ratio of second acknowledgment packets to second transmitted packets transmitted at a second transmission rate, within a predetermined time interval, wherein the second transmission rate is lower than the first transmission rate;
- increasing the first transmission rate, if the determining step determines that the first successful transmission ratio is larger than the second transmission ratio; and
- decreasing the first transmission rate, if the determining step determines that the first successful transmission ratio is not larger than the second transmission ratio.

40. (New) The method of claim 39 further comprising:  
increasing the second transmission rate, if the determining step determines that  
the first successful transmission ratio is larger than the second transmission ratio.

41. (New) The method of claim 39 further comprising:  
decreasing the second transmission rate, if the determining step determines that  
the first successful transmission ratio is not larger than the second transmission ratio.

42. (New) The method of claim 39, wherein the operation of increasing the first  
transmission rate is performed only if the first transmission rate doesn't exceed a  
maximum transmission rate.

43. (New) The method of claim 39, wherein the operation of decreasing the  
second transmission rate is performed only if the second transmission rate is not below  
a minimum transmission rate.